## IN THE CLAIMS

Claim 1 has been amended as follows:

1. (Currently amended) A method for automatically equalizing microphone signals in a directional microphone system having at least three omnidirectional microphones, wherein said at least three omnidirectional microphones are electrically connected in respective pairs to form a first directional microphone of the first order and a second directional microphone of the first order, said method comprising the steps of:

equalizing only respective amplitudes of respective microphone signals generated by said omnidirectional microphones; and

equalizing only respective amplitudes of respective microphone signals generated by said first and second directional microphones of the first order by phase shifting the microphone signal generated by at least one of the omnidirectional microphones.

2. (Original) A method as claimed in claim 1 comprising the steps of:

embodying said directional microphone system in a hearing aid device having a housing with at least three sound entrance ports respectively associated with said at least three omnidirectional microphones; and

disposing said at least three sound entrance ports along a substantially straight line and with a same spacing between adjacent sound entrance ports.

3. (Original) A method as claimed in claim 1 wherein each of said omnidirectional microphones has a signal transfer function associated therewith, and wherein the step of equalizing respective amplitudes of respective microphone signals generated by said at least three omnidirectional microphones comprises the steps of:

for each of said at least three omnidirectional microphones, measuring a temporal average of acoustic field energy detected by that omnidirectional microphone; and

adapting the respective signal transfer functions of the at least three omnidirectional microphones dependent on the temporally averaged acoustic field energy measured for each of said at least three omnidirectional microphones to equalize the temporally averaged acoustic field energy for all of said omnidirectional microphones.

4. (Original) A method as claimed in claim 3 wherein the step of measuring the temporally averaged acoustic field energy comprises, for each of said at least three omnidirectional microphones, measuring a signal level of the microphone signal from that omnidirectional microphone.

5. (Original) A method as claimed in claim 3 wherein the step of adjusting the respective signal transfer functions comprises multiplying the respective microphone signals generated by the at least three omnidirectional microphones with respective weighting factors.

6. (Original) A method as claimed in claim 1 wherein each of said first and second directional microphones of the first order has a signal transfer function associated therewith, and wherein the step of equalizing respective amplitudes of respective microphone signals generated by said first and second directional microphones of the first order comprises the steps of:

for each of said first and second directional microphones of the first order, measuring a temporal average of acoustic field energy detected by that directional microphone of the first order; and

adapting the respective signal transfer function of at least one of the first an second directional microphones of the first order dependent on the temporally averaged acoustic field energy measured for each of said first and second directional microphones of the first order to equalize the temporally averaged acoustic field energy for both of said first and second directional microphones of the first order.

7. (Original) A method as claimed in claim 6 wherein the step of measuring the temporally averaged acoustic field energy comprises, for both of said first and second directional microphones of the first order, measuring a signal level of the microphone signal from that directional microphone of the first order.

Claim 8 has been amended as follows:

8. (Currently amended) A method as claimed in claim 1 wherein said at least three omnidirectional microphones include a first omnidirectional microphone, a second omnidirectional microphone and a third omnidirectional microphone, and wherein said method comprises the steps of:

electrically connecting said first and second omnidirectional microphones to form said first directional microphone of the first order;

electrically connecting said second and third <u>omnidirectional</u> microphones to form said second directional microphone of the first order;

electrically connecting said first and second directional microphones of the first order to form a directional microphone of the second order;

phase shifting the microphone signal generated by one of the first and second omnidirectional microphones to reduce the amplitude of the microphone signal generated by the first directional microphone of the first order with respect to the amplitude of the microphone signal generated by the second directional microphone of the first order; and

re-equalizing the respective amplitudes of the first and second directional microphones of the first order by phase shifting the microphone signal generated by one of said second and third omnidirectional microphones.

9. (Original) A method as claimed in claim 8 wherein the step of phase shifting the microphone generated by one of said first and second omnidirectional microphones comprises phase shifting the microphone signal generated by one of the first and second omnidirectional microphones within a predetermined range to minimize the microphone signal generated by the first directional microphone of the first order with respect to the amplitude of the microphone signal generated by the second directional microphone of the first order.

10. (Original) A method as claimed in claim 8 comprising iteratively repeating the phase shifting of the microphone signal generated by one of the first and second omnidirectional microphones and the phase shifting of the microphone signal generated by one of the second and third omnidirectional microphones until a predetermined difference between the respective amplitudes of the first and second directional microphones of the first order is achieved for successive iterations.

11. (Original) A method as claimed in claim 1 comprising dividing the microphone signals generated by the respective omnidirectional microphones into frequency bands, and wherein the step of equalizing respective amplitudes of respective microphone signals generated by the omnidirectional microphones comprises compensating respective amplitudes of respective microphone signals generated by the omnidirectional microphones in each frequency band, and wherein the step of compensating respective amplitudes of respective microphone signals generated by the first and second directional microphones of the first order comprises compensating respective amplitudes of respective microphone signals generated by said first and second directional microphones of the first order in each of said frequency bands.

Claim 12 has been amended as follows:

12. (Currently amended) A directional microphone system comprising:

a first omnidirectional microphone, a second omnidirectional microphone and a third omnidirectional microphone, each of said first, second and third omnidirectional microphones generating a microphone signal having a signal level;

a first pair of said first, second and third omnidirectional microphones being electrically connected to form a first directional microphone of the first order;

a second, different pair or said first, second and third omnidirectional microphones being electrically connected to form a second directional microphone of the first order, each of said first and second directional microphones of the first order generating a microphone signal having a signal level;

first, second and third level measurement units respectively connected following said first, second and third omnidirectional microphones ~~for measuring~~ <u>that measure only</u> the respective signal levels of the microphone signals respectively generated by said first, second and third omnidirectional microphones;

a plurality of amplitude control units respectively connected to adjust the amplitudes of at least two of the respective microphone signals from the first, second and third omnidirectional microphones dependent <u>only</u> on the respective signal levels measured by said first, second and third level measurement units;

fourth and fifth level measurement units respectively connected subsequent to said first and second directional microphones of the first order ~~for measuring~~ <u>that measure</u> respective levels of the respective microphone signals generated by the first and second directional microphones of the first order; and

a phase control unit connected to adjust a phase of the respective microphone signal generated by at least of said first, second and third omnidirectional microphones dependent only on the respective signal levels measured by the fourth and fifth level measurement devices.

13. (Original) A directional microphone system as claimed in claim 12 comprising a plurality of phase control devices for respectively adjusting phases of respective microphone signals generated by at least two of said first, second and third omnidirectional microphones dependent on the respective signal levels measured by said fourth and fifth level measurement devices.

Claim 14 has been amended as follows:

14. (Currently amended) A hearing aid device comprising:

a housing having first, second and third sound entrance ports;

a directional microphone system in said housing comprising a first omnidirectional microphone and a second omnidirectional microphone and a third omnidirectional microphone respectively associated with said first, second and third sound entrance ports, each of said first, second and third omnidirectional microphones generating a microphone signal having a signal level, a first pair of said first, second and third omnidirectional microphones being electrically connected to form a first directional microphone of the first order, a second, different pair ~~or~~ of said first, second and third omnidirectional microphones being electrically connected to form a second directional microphone of the first order, each of said first and second directional microphones of the first order generating a microphone signal having a signal level,

first, second and third level measurement units respectively connected following said first, second and third omnidirectional microphones ~~for measuring~~ that measure the respective signal levels of the microphone signals respectively generated by said first, second and third omnidirectional microphones, a plurality of amplitude control units respectively connected to adjust the amplitudes of at least two of the respective microphone signals from the first, second and third omnidirectional microphones dependent only on the respective signal levels measured by said first, second and third level measurement units, fourth and fifth level measurement units respectively connected subsequent to said first and second directional microphones of the first order ~~for measuring~~ that measure respective levels of the respective microphone signals generated by the first and second directional microphones of the first order, and a phase control unit connected to adjust a phase of the respective microphone signal generated by at least of said first, second and third omnidirectional microphones dependent only on the respective signal levels measured by the fourth and fifth level measurement devices;

a signal processor in said housing ~~for processing~~ that processes the respective microphone signals from said first and second directional microphones of the first order to produce a processed signal; and

an earphone in said housing ~~for transducing~~ that transduces said processed signal to form an acoustic output signal.